Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-22 (canceled)

23. A host cell for identifying agents that alter mitochondrial permeability transition, comprising:

(a) a first nucleic acid expression construct, comprising a promoter operably linked to a polynucleotide encoding a mitochondrial permeability transition pore component polypeptide fused to a polynucleotide encoding a first energy transfer molecule or a variant thereof; and

(b) a second nucleic acid expression construct, comprising a promoter operably linked to a polynucleotide encoding a cyclophilin polypeptide fused to a polynucleotide encoding a second energy transfer molecule or a variant thereof, wherein binding of the mitochondrial permeability transition pore component polypeptide to the cyclophilin polypeptide results in detectable energy transfer between the first and second energy transfer molecules.

24. The host cell of claim 23 wherein the mitochondrial permeability transition pore component is an adenine nucleotide translocator.

25. The host cell of claim 24 wherein the adenine nucleotide translocator is selected from the group consisting of human ANT1, human ANT2 and human ANT3.

26. The host cell of claim 23 wherein the mitochondrial permeability transition pore component is selected from the group consisting of porin, hexokinase, creatine kinase, PRAX, CAML and the peripheral benzodiazepine receptor.

27. The host cell of claim 23 wherein the cyclophilin is selected from the group consisting of human cyclophilin A, cyclophilin B, human cyclophilin C and human Cyp-60.

28. A host cell according to claim 23, wherein the host cell is a prokaryotic cell.

29. A host cell according to claim 23, wherein the host cell is a eukaryotic cell.

30. (Currently Amended) A host cell according to claim 29~~39~~, wherein the eukaryotic cell is selected from the group consisting of 293, COS-7, Sf9, CHO, Hep-2, MDCK and Jurkat.

31. A host cell according to claim 23, wherein the first and second energy transfer molecules are selected from the group consisting of green fluorescent protein (GFP), blue-shifted GFP, cyan-shifted GFP, red-shifted GFP and yellow-shifted GFP.

32. A host cell according to claim 23, wherein the first and second energy transfer molecules have an excitation maximum at a wavelength ranging from 300 nm to 650 nm, and an emission maximum at a wavelength ranging from 350 nm to 675 nm.

33. A host cell according to claim 23, wherein the first energy transfer molecule and the second energy transfer molecule have excitation and emission maxima at different wavelengths.

34. A host cell according to claim 23, wherein at least one nucleic acid expression construct is extrachromosomal.

35. A host cell according to claim 27, wherein at least one nucleic acid expression construct is integrated into a host cell chromosome.

36. A host cell according to claim 35 wherein the host cell chromosome is a mitochondrial chromosome.

Claims 37-67 (canceled)

68. A method for preparing a mitochondrial permeability transition pore component polypeptide fused to an energy transfer molecule, comprising the steps of:

(a) culturing a host cell comprising a nucleic acid expression construct that encodes a fusion protein comprising an adenine nucleotide translocator polypeptide or a derivative thereof fused to an energy transfer molecule polypeptide or a derivative thereof, under conditions that permit expression of the fusion protein; and

(b) recovering fusion protein from the culture.

69. The method of claim 68 wherein the mitochondrial permeability transition pore component is an adenine nucleotide translocator.

70. The method of claim 69 wherein the adenine nucleotide translocator is selected from the group consisting of human ANT1, human ANT2 and human ANT3.

71. The method of claim 68 wherein the mitochondrial permeability transition pore component is selected from the group consisting of porin, hexokinase, creatine kinase, PRAX, CAML and the peripheral benzodiazepine receptor.

Claims 72-82 (canceled)

83. A kit for screening for agents that alter mitochondrial permeability transition, comprising:

(a) an isolated cyclophilin D polypeptide or a derivative thereof;

(b) an isolated adenine nucleotide translocator polypeptide or a derivative thereof; and

(c) a detection reagent that specifically binds to at least one of the foregoing polypeptides.

Claims 84-91 (canceled)